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PATENT  
DOCKET: B INFINITY - 3.0  
IN THE UNITED STATES PATENT AND TRADE MARK OFFICE

In re the Application of  
**BRUCE NACHMAN**  
Serial No. 08/669, 056  
Filed JUNE 24, 1996  
For: INTERFACE CIRCUIT FOR  
UTILIZING A FACSIMILE COUPLED TO A  
PC AS A SCANNER

Response to Office Action due 10/20/99

Group Art Unit: 2722

Examiner: Cheufkan Lee

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

Commissioner of Patents and Trademarks, Washington, DC 20231 on:  
October 20, 1999  
Marvin J. Nachman

Signature

Hon. Commissioner of Patents and Trademarks  
Washington, DC 20231

With respect to the Office Action dated July 20, 1999, Kindly amend the above identified application as follows:

Response to paragraph 3, Claims 27 - 53, have been rejected under U.S.C. 112, second Paragraph, as failing to set forth the subject matter which applicants regard as their invention.

Claims 27 - 53 have been amended to comply with 35 U.S.C. 112, and as noted herein.

Kindly add new claims 54, and 55,

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Claim 54 - A method of making a facsimile machine operable as a scanner printer for a computer, each of the facsimile machine, and computer for communicating, using at least one public network telephone line, comprising the steps of:  
configuring the facsimile machine to communicate with the personal computer using a digital connector port on the facsimile machine, and a digital connector port on the computer, with both the facsimile machine and computer isolated from said at least one telephone line: and  
arranging the facsimile machine to send or receive digital serial data.: and

10/29/1999 FEE PAYMENT RECORDS  
00000033 00669056  
16.00 US  
4.00 CP  
01 FC:103  
02 FC:998  
11/04/1999 TRANSFER RECORDS  
0000000005 22025  
16.00 CH  
01 FC:202

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Concl*

means for coupling the digital signals to the personal computer, and the facsimile machine,  
said computer equipped with send / receive driver communications software enabling the reception of scanned image signals from the facsimile machine, or the sending of computer data to the facsimile machine for printing.

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Claim 55 - The transfer of uninterrupted, signals between a facsimile machine and a computer, representative of scanned data from the facsimile machine or print data from the computer, said facsimile machine, isolated from a public network telephone line, and connected to an appropriate receiving / sending port of a computer.

*Sub tit 1*

*G2*

27, (Amendment 2). -The use of facsimile machines [and / or and facsimile modems internal to an office product ], to create a scanning capability from a facsimile machine to a [ component] computer; with data transferred [ in a conventional way], between the facsimile machine and the computer, [ and ] without interruption, [ manipulation or modification of the original signals] said facsimile machine and computer [devices] being directly connected to each other, and isolated from a connection with a public network telephone line.

28, (Amendment 2). -The use of facsimile machines, [ and / or] and facsimile modems, internal or external to computers and various office products, to perform a scanning function, [ and being connected by telephone types of circuits] said facsimile machine and fax modem being connected, transferring data [ in a conventional way and], without interruption, [ or manipulation ] of the [original ] signals between the facsimile machine and the fax modem, said facsimile machine and fax modem being

*H' Comel*

isolated from the public network telephone line [connection for performing scanning being facilitated by the telephone circuits, isolated from the public network, ] and by which the establishment of the transmission state within these types of [circuits] connections include one of:

- a) External initiation including [a via] ringing, constant current, on / off hook, or any typical telephone signaling;
- b) Internal initiation, [such as] including setting a manual receive mode, setting a specialized mode, [for example] including, [ "PC mode" ] "computer mode" or by pressing a start button on the facsimile machine;
- c) or [any] combination [thereof] of a and b.

29, ( Amendment2 ) - The [ direct ] transfer of non interrupted, [ non manipulated, and non modified ] signals from a facsimile machine, through a [ passive ] connection containing data, representative of scanned images, [ from a standard ] said facsimile machine, isolated from a public network telephone line, and connected to an appropriate receiving port of a computer.

30. ( Amendment 2 ) The [ direct ] transfer of non interrupted, [ and non manipulated, non modified ] signals, through a [ passive] connection containing analog data or RS 232 and parallel signal subsets thereof, said signals being representative of scanned images from a [ standard] facsimile machine, and isolated from a public network telephone line, to an appropriate receiving port of a computer.

31, ( Amendment 2 ) -The [ direct ] transfer of uninterrupted, [ non-manipulated and non modified ] signals, through a [ passive] connection containing data, said

signals being representative of scanned images from a standard facsimile machine,  
isolated from a public network telephone line to an appropriate receiving port of  
office products equipped to accept such signals.

Sub H2

32. - The [ method ] use of claim 27, including transferring a parallel data source signal of a scanned image from a [ fax machine ] facsimile machine to a computer.
33. - The [ method ] use of claim 27, including transferring a serial data source signal of a scanned image from a facsimile machine to a computer.
34. - The [ method ] use of claim 27, including transferring an analog scanned image source signal from a facsimile machine to a computer.

Sub H3

- 35, (Amendment 2) - The [ direct ] transfer of non interrupted, [ non manipulated, and non modified, ] data signals, [ containing data ], representative of a document to be printed from a computer, and connected to an appropriate receiving port of a [ standard ] facsimile machine, said facsimile machine and computer being [ and ] isolated from [ a ] one or more public network telephone [ line ] lines.

- 36, (Amendment 2) - A method of making a facsimile machine operable as a scanner or printer for a personal computer, each of the facsimile machine and personal computer for communicating using [a] at least one public network telephone line, comprising the steps of:

configuring the facsimile machine to communicate with the personal computer using a connector port of the facsimile machine, and personal computer, with both the facsimile machine and personal computer [and] isolated from [the] said at least one public network telephone line:

arranging the facsimile machine to be in a simulated off-hook condition: and

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shifting the personal computer to an off-hook condition for sending  
or receiving a signal in a facsimile machine format using  
[an RJ-11] a connector port of the personal computer.

Claims 37, 38, 39, and 42 needed no modification, and are dependent claims,  
therefore it was felt not necessary to resubmit them.

*Sub H5* → 40. The method of claim 36, using [ any combination of ] RJ 11, RS 232, or  
Parallel port type connectors to interface between a facsimile machine [and a]  
or said computer.

*Sub H6* → 41. The [method] application and use of claim 27 further comprising optically  
recognizing the scanned data and converting the scanned data into  
character codes.

*Sub H7* → Claim 43 - A method of using a facsimile machine as a scanner or printer for a personal  
computer, each of the facsimile machine and personal computer for communicating using  
telephone types of circuits, comprising the steps of:

- (a) Configuring the facsimile machine to communicate with the personal computer  
using the facsimile machine, and [isolated from] isolating the facsimile machine and  
computer from the active public telephone network,  
(b) arranging the facsimile machine to be in a simulated off-hook condition, or  
connection mode; and  
(c) shifting the personal computer to an off-hook condition, or connection mode  
for sending or receiving non interrupted signals in facsimile formats.

*No Charge* → Claim 44 - The method of claim 43 including using serial data transmissions between the  
facsimile machine and the personal computer.

Claim 45 - The method of claim 43 including using parallel data transmissions between the  
facsimile machine and the personal computer.

Claim 46 - The method of claim 43 including using analog data transmissions between the  
facsimile machine and the personal computer.

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Claim 47 - The method of claim 43 [including] using analog data transmissions, or digital serial, or parallel [signal] signals [subsets thereof], between the facsimile machine and the personal computer

*One*

Claim 48 - The method of claim 43 further comprising optically recognizing the scanned data and converting the scanned data into character codes.

*H*

Claim 49 - The use of a facsimile machine connected to a computer, both being isolated from the [active] public network telephone line, and providing for the [direct] transfer of scanned image signals to the computer, without interruption or modification during transmission.

*H*

Claim 50 - The use of a facsimile machine connected to a computer, both being isolated from the [active] telephone line, and providing for the [direct] transfer of signals from the computer, to be printed by the facsimile machine, without interruption or modification during transmission.

*B10*

Claim 51 - A method of using a facsimile machine as a scanner or printer for a personal computer, each of the facsimile machine and personal computer for communicating using telephone types of circuits, comprising the steps of:

(a) Configuring the facsimile machine to communicate with the personal computer using the facsimile machine, both the facsimile machine and the computer being [and] isolated from the (active) public telephone (network,) line

(b) arranging the facsimile machine to be in a simulated off-hook condition, or connection mode; and

(c) shifting the personal computer to an off-hook condition, or connection mode for sending or receiving signals without interruption or manipulation in facsimile formats.

*Sub H8*

Claim 52 - A method of using a facsimile machine with a computer, such that said facsimile machine, can operate as a scanning device, when isolated from the telephone [network] line, comprising the steps of:

- (a) coupling the facsimile machine to the computer;
- (b) Generating a facsimile machine signal, whereby the computer is conditioned to receive signals representing data on a scanned document.
- (c) Generating a signal to simulate an off - hook condition, providing a direct path, whereby the facsimile machine is conditioned to transmit, [ and/or non modified] signals without interruption to the computer, representing data on a scanned document.

Claim 53. A method of using a facsimile machine with a computer, such that said facsimile machine, can operate as a printing device, when isolated from the telephone [network] line, comprising the steps of:

- (a) coupling the facsimile machine to the computer;
- (b) Generating a signal representative of a standard facsimile machine call signal, whereby the computer is conditioned to [Transmit] transmit signals representing data on a document to be printed.
- (c) Generating a signal to simulate an off - hook condition, providing a direct path, whereby the facsimile machine is conditioned to receive non interrupted, non manipulated and /or non modified signals representing data from the computer of a document to be printed.

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Response to paragraph 4. -Claims 27 - 31, 35 - 37, 43, 44, 47, and 49 - 53, patent examiners written opinion.

Applicant respectively traverses the opinion as noted below:

27. We concur that Perkins shows how a fax machine and a computer can be used for scanning and printing. However, the system and method of implementation of Perkins is significantly different, than the Applicant, in the following respects.

Integral to Perkins implementation is device 3, which differs significantly from the Applicant in the following ways:

The Patent Examiner states , "Regarding Claim 27, Perkins discloses a system and a method of a computer using a facsimile machine as a scanner or a printer."

The paragraph continues by indicating the scanned image data from the facsimile machine to the computer passes through facsimile device 3, and when used as a printer, the computer communicates data to the facsimile machine through device 3.

The principle part of Perkins invention is device 3, which incorporates all of the following:

See Column 4, of Perkins

Line 7, A loop Detector Circuit, 8

Line 10, Microprocessor, 10

Line 13, Modem, 9

Line 19, 20 References use of special software required for "Control Program"

Line 13, and 14, column 5, References device 3 controls, display 12, and keypad 13

As noted above Perkins is limited to a teaching in which all of the above must be provided in order for Perkins to perform a scanning and a printing function.

The Applicant does not provide nor require any of the above device 3 components and software of Perkins to be incorporated as part of the Applicants invention, in order to enable the transfer of a scanned image to the computer or print data to be received by the facsimile machine from the computer. The Applicant recognized and used the available serial port connector of a computer to enable the transfer of digital data for scanning and printing to and from a facsimile machine equipped with a serial port connector, **without requiring the need for a computer facsimile modem**, as shown in the Applicants, Patent Application, Figures F, G, and H, and described in the body of the Specification page 13, lines 24 through page 14 line 23, and page 16, Lines 22 through page 17, line 14.

The Applicant also recognized that the standard RJ 11 type connections could be used between a facsimile machine and a computer connecting to an existing facsimile modem. And, by establishing a simulated "off-hook" connection between them, data flow would be enabled for scanning, printing and data storage. See Figures I, and J of the Patent Application, and the Specification, page 14, Lines 24 to page 15, line 8, with respect to Figure I, and page 15, lines 9 through 12, with respect to Figure J.

Perkins method for both the scanning and printing function requires a multiprocessing function within device 3. See Perkins Column 5, lines 1-9. The received modulated signals are demodulated and then communicated to the microprocessor, **where the microprocessor transfers** the demodulated signals to the serial port of the computer. This is distinctly different than the Applicants Patent Application, which does not require any manipulation of the data stream which occurs during transmission **between** any facsimile machine, and a computer or a computer fax modem. The Applicant does not provide, nor require a device 3 which is comprised of, special microprocessor 10, uniquely designed modem 9, loop detector circuit 8, or special software as does Perkins, in addition to the associated parts required by Perkins as listed above.

Perkins, Column 4, lines 24 through 54, describes a printing function, which uses a microprocessor and the associated circuitry of device 3, in order to establish the transfer of data.

Perkins, Line 55, column 4, through , column 5, line 12 describes a scanning function, which uses a microprocessor and the associated circuitry of device 3, in order to establish the transfer of data.

Based on the above information, Perkins requires special interface circuitry and software comprising device 3, which intercepts the source signals from a fax machine or a computer, and demodulates the modulated signals and transfers said signals through a modem 9, and a microprocessor 10, in device 3, and sometimes stores the signals in memory.

Unlike Perkins, the Applicant allows for the uninterrupted transfer of scanning or printing signals **between** the fax machine and the computer without the use of intervening circuitry, and does not intercept the signals for demodulation as Perkins does with device 3.

The Applicant facilitates establishing a direct connection enabling the uninterrupted transfer of signals **between** the facsimile machine and the computer, or the computer fax modem, upon first isolating them from the outside telephone line.

The following is noted, with respect to the Examiners comment " Because the computer uses a fax board, the data transferred to and from the computer is considered being transferred without manipulation or modification of the scanned document image signal."

Although the data transferred to and from the computer through device 3 of Perkins provides the same results as the Applicant, the Applicant does not manipulate, modulate, demodulate, or interrupt, the transfer of the signals, between the facsimile machine and the computer, as is required by Perkins.

Please note that Perkins specially designed device 3, initiates the transfer of the data signals with the microprocessor, subsequently intercepts the data signals in the microprocessor, and then transfers said data signals through the microprocessor. See Perkins, Column 4, lines 41 to Column 5, line 12, for a full description of signal manipulation as described by Perkins. **This description describes a physical electronic exchange of data, which results in reproduction and subsequent duplication of the scanned document image signal.**

Therefore, the data transferred to and from the computer is definitely being transferred by Perkins device 3, with manipulation and modification of the scanned image signal.

The Patent Examiner refers to device 3, with respect to the method employed for both Scanning and Printing, for Perkin's. This method is different from The Applicant' as noted above and in the following respects.

Perkins only connects to a computer via a serial port connector. ( See column 3, lines 65 to 68 and column 4 lines 14 to 17, column 5, lines 7 through 9 ), whereas, The Applicant can use the existing telephone connector link, an RJ 11, or a serial port connector between the fax machine and the computer. Reference the Applicants, Patent Application, including, Figures, **2E through 2J**

In effect, Perkins provides many design changes which are incorporated into Perkins device 3, in order to create a scanning and printing function between a Facsimile machine and a PC.

The Applicant developed a **simpler method** for scanning and printing which automatically isolates the telephone line for either scanning or printing, and directly links the computer, or the computers fax modem, to the facsimile machine, in order to activate the scanning or printing function.

At the risk of being repetitive, I again emphasize, the Applicant does not require a microprocessor or **any circuitry or software to interrupt and intercept** the signals which occur in transmissions between a fax machine and a computer, and does not, manipulate, said signals in any way as Perkins does with device 3. Further, the Applicant enables a transmission to occur **between** the fax machine and a computer, by establishing an **uninterrupted** data transfer connection between the two devices.

The Applicant takes a much simpler approach and **does not provide a fax modem, but uses the existing fax modem** in the computer or externally connected to the computer to send or receive a scanning or printing data transmission, as shown in Applicants Figures 2E, 2I, and 2J.

The Applicant also shows that a computer **fax modem is not needed** in Figures 2F,2G and 2H, which Perkins does not consider in any of his applications.

Perkins to the contrary uses a **specialized device 3, and control software** to initiate a transmission to or from a facsimile machine and a computer, and to intercept and subsequently transfer said signals through device 3, before they are transferred to the Fax machine or the PC.

Perkins does not suggest nor consider the direct transfer of image signals from a facsimile machine to the computer without the use of intervening device 3, which is the heart of the Perkins invention.

Perkins, does not claim a generic way of scanning and printing, see Claim 1, iii, ( i ), ( ii ). The later 2 paragraphs ( i ), ( ii ), describe control means specific to a microprocessor, which Perkins requires in order for scanning and printing activity to occur.

In view of the foregoing discussion, it is apparent that the Applicant has invented a simpler way than Perkins, to accomplish a scanning and printing function, between a facsimile machine and a computer.

It is submitted that claims 27 - 53 patentably distinguish over the art of record, and reconsideration and allowance of these claims, together with new claim 54, and 55 be allowed.

Reconsideration and early allowance of this application are respectfully requested,-in view of the foregoing..

If, however, the Examiner is of the opinion that such favorable action cannot now be taken, it is requested that she telephone the undersigned Applicant in order that any outstanding issue may be resolved without the necessity of a further office action

A fee of \$22.00 is enclosed for the additional claims.

Respectfully submitted,



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